

April 2009

Fill Project Near Narrows in Giles County

The Virginia Department of Environmental Quality approved an application from the Giles County Partnership for Excellence (the Partnership) on October 24, 2007, for a project that adds material to a site near Narrows for future commercial development. The applicant refers to the site as the Cumberland Park project.

Site description

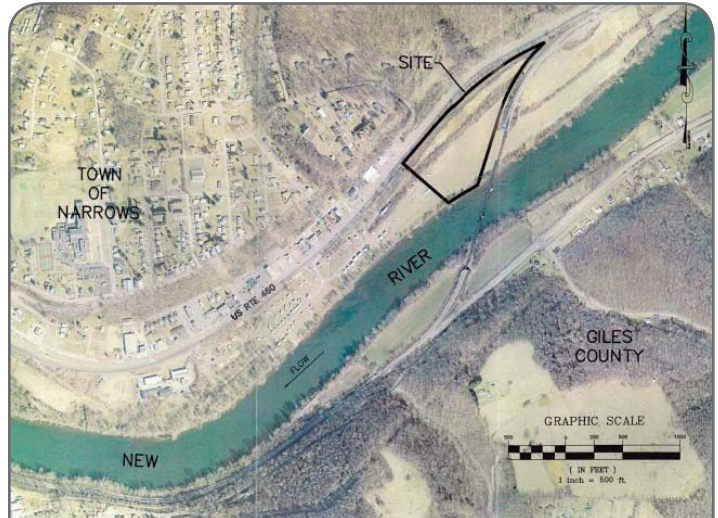
By-products from the burning of coal for electricity (called fly ash and bottom ash) are being deposited on a site that is located outside of Narrows, VA, along Route 460 and adjacent to the New River. The fly ash and bottom ash will come from the American Electric Power Plant in Glen Lyn. Fly ash is composed of ash particles collected from air pollution control devices on combustion units. Bottom ash is ash or slag that has been discharged from the bottom of the combustion unit. The partnership expects to deposit approximately 254,000 cubic yards of this fill material on the site.

The filling for the project began in late 2007 with an expected completion date in 2010. The fill area encompasses approximately 7.7 acres of the 14.8 acres on the property. The minimum fill elevation is 1,538 feet, and the maximum fill elevation is 1,584 feet. The fill will be protected by an earthen berm stabilized by an anchored, reinforced vegetation system. The elevation of the berm will be 1,560 feet, and the floodplain elevation is about 1,559 feet. When complete, the fill material will receive a minimum of 18 inches of final cover, consisting of 12 inches of compacted soil to minimize infiltration and a six inch layer of soil to support vegetative growth.

DEQ review and regulatory requirements

The Giles County Partnership for Excellence provided documentation showing that the project is in compliance with Virginia's coal combustion by-product regulations.

The regulations establish standards for siting, design, construction, operation and administrative procedures pertaining to the use, reuse and reclamation of coal combustion by-products. The owner or operator of the site provided the following documentation to ensure compliance with the regulations.



The location of the fill project is a site that is located outside of Narrows along Route 460 and adjacent to the New River.

- Certification of legal control over the site for the project life and closure period
- Certification from the local government that the site complies with local ordinances
- General description of the intended use, reuse, or reclamation of the by-product material
- Operations plan
- Closure plan
- Owner's statement allowing authorized representatives of the Commonwealth access to the site to ensure compliance

DEQ was required to evaluate this documentation for completeness within 30 days of its submittal to the agency to verify that all of the necessary information had been submitted.

DEQ received the original application from the partnership on Aug. 9, 2007, and requested some additional clarification and documentation in correspondence dated Sept. 6, 2007. The additional information was submitted on Sept. 25, 2007, and DEQ approved the application on October 24, 2007.

DEQ periodically inspects locations where ash products are used for fill material once construction begins, although there is no regulatory requirement to do so. DEQ has visited the Cumberland Park Project on numerous occasions since construction began. The regulations do not require a liner to be installed, ground water monitoring, a public comment period or financial assurance of the owner or operator. Local governments may have their own requirements for public hearings. As part of the application, the owner provided certification from the local government indicating that the proposed project is consistent with all local ordinances.

Regulatory requirements	How the project meets the requirements
Siting	
The site cannot be placed in areas subject to base floods unless it can be shown that fossil fuel combustion products can be protected from inundation or washout and that flow of water is not restricted.	The project is located in the 100-year floodplain for the New River. An earthen berm with an anchored reinforced vegetation system will be constructed to protect the fill material from inundation and washout. Flow in the river is not restricted by this activity.
The vertical separation between the fossil fuel combustion products and the seasonal high water table or bedrock shall not be less than two feet.	There is a separation of 6.55 feet from the base of the fill and the seasonal high water table.
Must be 100 feet from any perennial stream	The project is 280 feet from the New River.
Must be 100 feet from any water well (other than a monitoring well) in existence at the onset of the project	There are no water wells in the vicinity of the site. Adjacent properties are served by public water from Narrows.
Must be 25 feet from a bedrock outcrop, unless the outcrop is properly treated to minimize infiltration into fractured zones	There are no outcrops within 25 feet.
Must be 100 feet from a sinkhole	There are no sinkholes within 100 feet from the proposed fill location.
Must be 25 feet from any property boundary or, in the case of projects permitted by the Virginia Department of Mines, Minerals and Energy, 25 feet from the permit boundary	A variance was approved on July 25, 2007, which allows fill within 25 feet of the property boundary along the Route 460 property line in the Virginia Department of Transportation right-of-way. The 25-foot buffer requirement will be respected for all other property boundaries at the site.
Cannot be in wetlands, unless applicable federal, state and local permits are obtained	The fill site is not located in a wetland.
Cannot be on the site of an active or inactive dump, unpermitted landfill, lagoon or similar facility, even if such facility is closed	The site is not an active or inactive dump, unpermitted landfill, lagoon or similar facility.
Design and Construction	
Runoff from the fill area must be controlled and contained in accordance with the site erosion control plan.	The erosion control plan was approved by Giles County in July 2007.
The maximum finished side slope must not exceed 33 percent, and the finished top slope must be at least two percent to prevent ponding water, except where covered by a building, roadway, etc.	Side slopes will not exceed 33 percent and the minimum top slope will be at least two percent.
Operation	
Control tracking of mud or fill material onto public roads and fugitive dust at site	A stone construction entrance will be used along with tire wash facility if needed to control mud, and a dust control system will be installed.
Prohibit addition of any solid waste	Fill material will not contain any solid or hazardous waste and will not exceed the heavy metal levels established in the regulations.

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Regulations

Coal Combustion By-Product Regulations
<http://www.deq.virginia.gov/waste/wastereg85.html>